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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/871,467	05/31/2001	Liang Chen	25094A	1738
22889	7590	09/07/2004	EXAMINER	
OWENS CORNING 2790 COLUMBUS ROAD GRANVILLE, OH 43023			WYROZEBSKI LEE, KATARZYNA I	
			ART UNIT	PAPER NUMBER
			1714	

DATE MAILED: 09/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/871,467

Applicant(s)

CHEN ET AL.

Examiner

Katarzyna Wyrozebski

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 June 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,4-10,12,13,16,18,19 and 21-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,4-10,12,13,16,18,19 and 21-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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In view of recently re-evaluated prior art of HUMMERICH and CHEN following office action is non-final. Upon further researching the topic, the examiner takes official notice that presence of mineral oil as dust suppression agent is an invariable ingredient for health reasons, since it prevents fiber glass dust from going airborne. Therefore use of such oil is common in the industry (NPL of 1988 International Program on Chemical Safety is attached for applicant's convenience). Therefore all the prior art of record as found is viewed in the light of provided teaching. In addition, it is examiner's position that if the amount of surfactant is added in the amount disclosed in the dependent claims, surface tension requirement will be satisfied.

Examiner also acknowledges cancellation of claims 2, 3, 11, 14, 15, 17, 20.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 4-10, 12, 13, 16, 18, 19, 21-28 are rejected under 35 U.S.C. 102(e) as being anticipated by HUMMERICH (US 6,071,994) in view of evidence given in CHEN (US 6,274,661) or SVEND (EP 567 480).

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The prior art of HUMMERICH discloses composition for fiber glass adhesive comprising following:

Polycarboxy binder (col. 2),

Polyhydroxy crosslinking agent (col. 3),

Surfactants (col. 3) in amount of 0.05-20 % by weight,

Oils (col. 10)

Coupling agents (col. 10).

The solids content of the composition of HUMMERICH is between 15 % (example col. 12) and 50.2 (Table col. 11).

With respect to the process of forming the fiber mat, the prior art of HUMMERICH refers to the disclosures of CHEN and EP 567 480. The processes defined in CHEN are referred to as those common in the art.

Step 1 of claim in HUMERICH col. 10, lines 30-32 is described as utilized where fiber mats are formed by melt spinning, which implies molten glass. For step 1 of the process claim HUMMERIC refers to EP patent where it is indicated that the fibers are formed on a moving conveyor that is blown downwardly within a forming chamber. Step 3 is inherent in view of claim 1. For step 4 and 5, HUMMERICH also refers to EP document and the aqueous binder solution is preferably sprayed onto the freshly prepared fibers while they are still hot. CHEN further provides evidence about common curing temperatures and times for such binders and fibers, which is 200-350°C for about ¼ to 3 minutes. In other words, the process of applicant's claim 18 is well known in the art.

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In the light of the above discussion the prior art of HUMMERICH anticipates requirements of claims rejected above.

3. Claims 1, 4-10, 12, 13, 16, 18, 19, 21-28 are rejected under 35 U.S.C. 102(b) as being anticipated by RECK (US 6,099,773) in view of evidence in (CHEN (US 6,274,366) or (EP 567,480).

The prior art of Reck discloses composition for a binder system utilized with fibers, which comprises polymer, crosslinking agent and surfactant.

According to the examples the polymer utilized in the prior art of Reck (col. 10) includes polyacrylic acid, as well as its copolymer with maleic acid. The crosslinking according to the same examples is triethanolamine amine. Crosslinking agents are utilized in an amount of 10 ppm to 5% by weight (col. 6, line 7).

According to the specification of the prior art of Reck, one of ordinary skill in the art is also enabled to utilize emulsifiers such as ethylene oxide/propylene oxide copolymers (col. 6, line 20), which is also well known surfactant. Other emulsifiers, which can also be utilized are surfactants include alkyl phenol ethoxylates, fatty acids ethoxylates, sulfur containing alkyl phenols. Such compounds can be utilized in an amount of 0.05-20 wt %.

The prior art of Reck forms aqueous composition, having solids content of 44.5 and 50 % (see examples, col. 10).

The process involves steps of applying binder composition to fibers by spraying and curing it (col. 9, lines 30-55). Sprayed fibers are then pressed at a temperature of 100-250°C for 15 sec-30 min. to give stable product.

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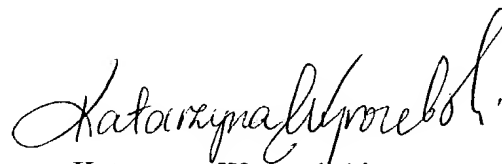
The prior art of CHEN further provides for otherwise common in the art process of preparing fiber glass mats and use of oils (col. 5 and 6).

In the light of the above disclosure, the prior art of RECK in view of evidence given in CHEN anticipates requirements of claims rejected above.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Katarzyna Wyrozebski whose telephone number is (571) 272-1127. The examiner can normally be reached on Mon-Thurs 6:30 AM-4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272-1119. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Katarzyna Wyrozebski
Primary Examiner
Art Unit 1714

September 2, 2004